Arizona Compendium of Findings and Recommendations from National Emergency Communications Plan (NECP) Goal 2 Observations

2012

Arizona Department of Administration
Arizona Strategic Enterprise Technology
Public Safety Interoperable Communications Office

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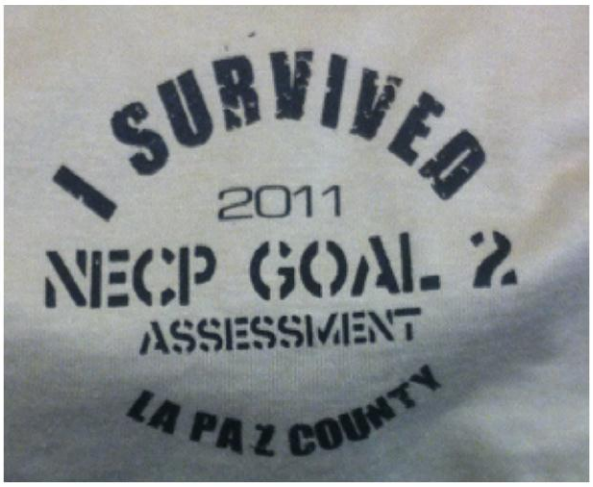
Background

The U.S. Department of Homeland Security (DHS) Office of Emergency Communications (OEC) developed the National Emergency Communications Plan (NECP) in coordination with representatives of the emergency response community at all levels of government. Contributors included the SAFECOM[1] Executive Committee/Emergency Response Council and the National Public Safety Telecommunications Council (NPSTC)—organizations that represent major public safety associations.



Since its release in 2008, the NECP is driving improvements in key areas identified by the public safety community as critical to emergency communications—including governance, planning, operating procedures, and training for responders. In addition to these priority areas, the NECP established performance benchmarks[2] to measure the ability of public safety agencies to demonstrate response-level emergency communications. These benchmarks were reflected in the NECP's three goals:

- ***Goal 1:*** *By 2010, 90 percent of all high-risk urban areas designated within the Urban Areas Security Initiative (UASI) are able to demonstrate response-level emergency communications within one hour for routine events involving multiple jurisdictions and agencies.*
- ***Goal 2:*** *By 2011, 75 percent of non-UASI jurisdictions are able to demonstrate response-level emergency communications within one hour for routine events involving multiple jurisdictions and agencies.*
- ***Goal 3:*** *By 2013, 75 percent of all jurisdictions are able to demonstrate response-level emergency communications within three hours of a significant event, as outlined in national planning scenarios*.

[1] In an effort to coordinate various Federal initiatives addressing emergency response interoperability, the SAFECOM program was established in 2001 by the Office of Management and Budget (OMB) and approved by the Bush Administration's President's Management Council (PMC) as a high priority E-Gov initiative.

[2] The Implementing the Recommendations of the 9/11 Commission Act of 2007 required that the Office of Emergency Communications establish a date in the National Emergency Communications Plan, including interim benchmarks, for when public safety agencies expect to achieve a baseline level of national interoperable communications.

The NECP defines "response-level communications" as the capacity of individuals with primary operational leadership responsibility to manage resources and make timely decisions during an incident.[3] OEC defined the following criteria to evaluate response-level emergency communications:

- ***Common Policies and Procedures:*** Shared policies and procedures should exist to allow interagency communications to occur in a consistent and structured manner during the event. The policies should be designed to avoid confusion, improve operational effectiveness, and increase the safety of responders and citizens.
- ***Responder Roles and Responsibilities:*** The responsibilities of responders should be clearly established and maintained during the event. Specifically, the National Incident Management System (NIMS) Incident Command System (ICS) principles of chain and unity of command, unified command (for multi-agency incidents), and a managed span of control should be demonstrated.
- ***Communications System Quality and Continuity:*** Land mobile radio (LMR) and related public safety communications systems should provide high-quality communications throughout the event for command and control of responding personnel, including if and when primary systems experience failures or disruptions.

OEC required each state to measure (1) capabilities and (2) performance to demonstrate NECP compliance. Capabilities data was collected from all Arizona counties as part of the annual Target Capabilities Assessment (TCA) update conducted by the Arizona Department of Homeland Security (AZDOHS) in 2010 and 2011. Goal One assessments were conducted by OEC for the Phoenix and Tucson UASIs in 2010. All Non-UASI jurisdictions[4] were required to demonstrate Goal Two performance in 2011.

OEC also required each state to document their process or methodology to measure meeting NECP Goal Two. To meet this requirement, the Public Safety Communications Advisory Commission (PSCC) approved the "Arizona Approach for Assessing Non-UASI Counties Progress toward Meeting NECP Goal Two Methodology" ("Arizona's Goal Two Methodology") on July 20, 2010[5] and submitted the measurement methodology as part of Arizona's 2010 SCIP Implementation Report on November 22, 2010.

The PSCC approved "Arizona's NECP Goal Two Performance Assessment Guide" ("Performance Assessment Guide") on November 16, 2010 to help Counties prepare for their Goal Two Performance Assessments[6]. The guide was revised by the PSCC on April 19, 2011.

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[3] Department of Homeland Security, *National Emergency Communications Plan*, p.6.

[4] All counties not defined as a UASI by the Department of Homeland Security's Fiscal Year 2008 UASI regions.

[5] http://www.azpsic.gov/library/necp/NECP_goal2_arizona_approach_07202010.pdf

[6] http://www.azpsic.gov/library/necp/UPDATED_NECP_Goal2_Performance_Guide_Approved_04192011.pdf

The Performance Assessment Guide supplements Arizona's Goal Two Methodology and was developed based on experience with NECP Goal One assessments, which were judged on identical criteria.

To measure NECP Goal 2, Arizona's Public Safety Interoperable Communications (PSIC) Office worked with Arizona's 13 non-UASI counties to assess their ability to demonstrate response-level emergency communications during a routine event. Events were to be managed in accordance with NIMS and included large public gatherings that required participation from multiple public safety agencies and jurisdictions. The observed events included participation from 116 State and local public safety agencies and Non-Governmental Organizations (NGOs), 12 Tribal agencies and six Federal agencies. Appendix A provides the dates and locations of the observed events, as well as the number of agencies that participated in each event. Appendix B lists the thirty-two individuals who served on one or more NECP Goal 2 observation teams.

Purpose

This Compendium documents the key findings from all of the NECP Goal 2 observations and includes the best practices, lessons learned, and recommendations that were developed by the observation teams. This Compendium does not provide the results of the individual County assessments; rather, it is a summary of findings from all of the After Action Reports (AARs). This Compendium will be provided to all County Emergency Managers, each agency that participated in the Goal 2 observations, the PSCC, the Statewide Interoperability Executive Committee (SIEC), and other public safety stakeholders. It aims to improve understanding of the current state of interoperable communications across Arizona.

This Compendium is organized by the three primary observation categories used to evaluate Goal 2: (1) Common Policies and Procedures; (2) Responder Roles and Responsibilities; and (3) Communications System Quality and Continuity. The Compendium explains each category's significance to emergency communications during an event and details the factors that guided the Goal 2 assessments. The Compendium then summarizes related findings from the Goal 2 observations for each observational element. These findings are broken out by the following areas:

- ***Ideal Performance:*** Guidance and examples of effective communications and coordination during planned events involving multiple disciplines and jurisdictions.
- ***Lessons Learned:*** Common issues and areas for improvement that were captured during the observations.
- ***Recommendations:*** Suggestions that the observation teams provided to jurisdictions to help guide improvement planning. When similar recommendations were given in multiple elements, the recommendation has only been included in this Compendium once in the most appropriate element. Some recommendations have been generalized in an effort to make the Compendium more applicable statewide. As a result, recommendations contained in a particular county's AAR will differ from those in this Compendium.

Participating agencies can use this report to compare their demonstration results with statewide findings for each observational element. Jurisdictions are encouraged to use their Goal 2 AARs and the recommendations in this Compendium for emergency communications planning within their county, and to improve communications during planned events and when responding to incidents.

In addition to assisting planning efforts, these findings will help PSIC better target its policy, planning, and support services to address gaps and needs identified during the Goal 2 observations. As an example, these findings will influence PSIC's development of Federal grant applications, requests for technical assistance services, and PSIC's support to Counties with their countywide planning activities.

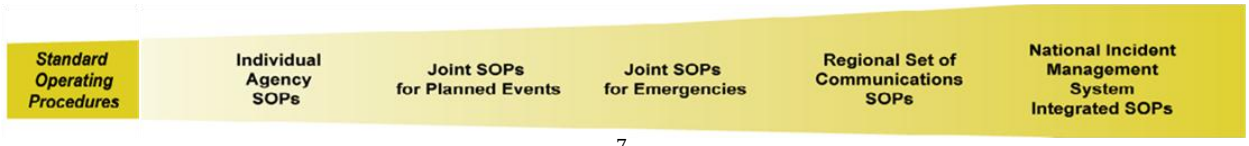
NECP Observational Elements

The observation teams used the following 14 elements established by DHS to assess each jurisdiction's ability to demonstrate Goal 2, as listed below.

Common Policies and Procedures
Element 1. Interagency communications policies and procedures were common or consistent amongst all responding agencies.
Element 2. Established interagency communications policies and procedures were followed throughout the event.
Element 3. Interagency communications policies and procedures across all responding agencies were consistent with NIMS.
Element 4. A priority order for use of interagency communications resources was followed as established in standard operation procedures or plans, such as the Tactical Interoperable Communications Plan (TICP).
Element 5. A primary interagency operations talk path was clearly established by procedure and communicated to responders early in the event.
Element 6. Common terminology and plain language were used in all interagency communications.
Element 7. Clear unit identification procedures were used.
Element 8. Common channel names were used for designated interoperability channels.
Responder Roles and Responsibilities
Element 9. Multiple organizations with inherent responsibility for some portion of the event were present and joined in a unified command with a single individual designated with Operations Section Chief responsibilities.
Element 10. Span of control was maintained amongst the primary operational leadership: the Operations Section Chief and first-level subordinates.
Element 11. Communications Unit Leader (COML) roles and responsibilities were carried out by the Incident Commander (IC)/Unit Commander (UC) or designee. Necessary communications resources were effectively ordered using documented procedures, and a communications plan was established by procedure or developed early in the event.
Communications System Quality and Continuity
Element 12. No more than one out of every ten transmissions was repeated amongst the primary operational leadership due to failure of initial communications attempts.
Element 13. Upon failure or overload of any primary communications mode, a backup was provided.
Element 14. Primary operational leadership communicated adequately to manage resources and make timely decisions during the event or incident.

Common Policies and Procedures

Standard Operating Procedures (SOPs) are widely recognized as essential to any event requiring interoperability among disciplines and jurisdictions. This is reflected in the SAFECOM Interoperability Continuum and the NECP, both of which highlight SOPs as a key element of interoperability.



Source: SAFECOM Interoperability Continuum[7]

Standard operating procedures—formal written guidelines or instructions for incident response—typically have both operational and technical components. Established SOPs enable emergency responders to successfully coordinate an incident response across disciplines and jurisdictions. Clear and effective SOPs are essential in the development and deployment of any interoperable communications solution.

- ***Individual Agency SOPs:*** SOPs exist only within individual agencies and are not shared, resulting in uncoordinated procedures and/or incompatible data systems among agencies that can hinder effective multi-agency/multi-discipline response.
- ***Joint SOPs for Planned Events:*** The development of SOPs for planned events—this typically represents the first phase as agencies begin to work together to develop interoperability.
- ***Joint SOPs for Emergencies:*** SOPs for emergency level response that are developed as agencies continue to promote interoperability. Regional Set of Communications SOPs—Region-wide communications SOPs for multi-agency/multi-discipline/multi-hazard responses serve as an integral step towards optimal interoperability.
- ***National Incident Management System Integrated SOPs:*** Regional SOPs are molded to conform to the elements of the National Incident Management System.

Furthermore, the most effective SOPs are developed in collaboration with other jurisdictions and disciplines to provide a clear, structured method to establish inter-agency communications during an incident. This was evident during NECP Goal 1 and Goal 2 observations, where common policies and procedures served as key indicators of success in the demonstration of response-level communications.

[7] http://www.safecomprogram.gov/oecguidancedocuments/continuum/default.aspx

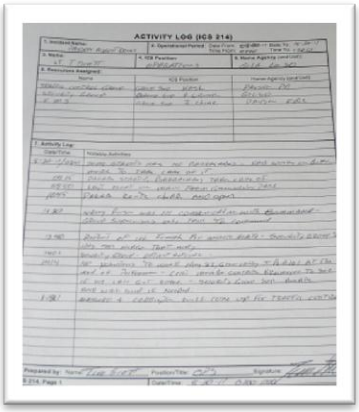
Element #1: Interagency communications policies and procedures were common or consistent amongst all responding agencies.

Sub-Element 1.1 & 1.2 Did policies and procedures exist for interagency communications between the involved jurisdictions, agencies, and disciplines? Were they written?

Policies and procedures are most effective when their content and application are consistent across all involved agencies. This consistency allows responders to communicate in a predictable and reliable fashion, both with peers in their own agency and with partners in other agencies. A lack of consistency across communications policies can lead to confusion and hinder response operations, potentially endangering responders' ability to safely and effectively manage an incident or event.

Ideal Performance

- Event participants used a single consolidated Incident Action Plan (IAP) that addressed all of the participating agencies and disciplines.
- The IAP was designed using key ICS forms, including:
  - ICS 202, Incident Objectives
  - ICS 203, Organization Assignment List
  - ICS 204, Assignment List
  - ICS 205, Incident Radio Communications Plan
  - ICS 206, Medical Plan
  - ICS 207, Organizational Chart
  - ICS 217, Radio Frequency Assignment Sheet



- Agency-specific operation plans were incorporated within the IAP as appendices or attachments rather than kept separately.
- The county had an up to date Tactical Interoperable Communications Plan (TICP) documenting interoperable communications governance structures, technology assets, and usage policies and procedures within a defined area or region. The TICP was readily available during the event.
- Participating agencies had additional communications SOPs governing the use of various communications assets to ensure their optimization.

Lessons Learned

- Written copies of plans should be available at all key event locations and for key staff members; staff should not be expected to rely solely on electronic copies or on memory.
- TICPs should be updated on a regular basis and put into practice to avoid significant deviations from how operations are conducted in the county. Updates to the TICP should document any new interoperable communications equipment, policies, and processes.
- The failure of public safety agencies and private organizations to collaborate on policy and planning initiatives may result in conflicting communications plans and breakdowns in response.

Recommendations

IAP

- Collaborate with event and/or Public Safety officials to develop and incorporate written coordination, operation, and/or communications policies into the event IAP for incidents that could involve both civilian officials and public safety jurisdictional responsibilities and/or disciplines.
- Ensure that written and/or electronic copies of all pertinent event planning documents, communications policies, and procedures are located within key event structures such as command posts, Mobile Communications Units (MCUs) and Dispatch Centers.
- Integrate document version control to ensure that draft materials are not disseminated during the event and only final documents are referenced. All documents should be labeled as "DRAFT," until final copies are signed and published, in order to ensure accuracy and consistency among distributed materials.

SOPs

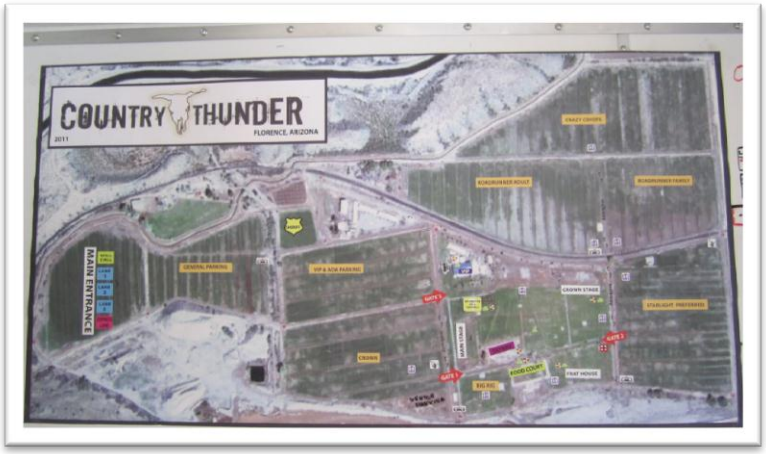
- Develop written policies, standards and procedures for interagency communications between the involved jurisdictions, agencies, and disciplines.
- Ensure policies and procedures address agencies dispatched by the communications center, as well as outside agencies or other responding entities.
- Establish MOUs or IGAs formalizing interagency communications agreements.
- Review, and when necessary, update key policies and procedures annually or more frequently as needed.
- Encourage all public safety agencies within the county to sign an MOU for the use of Arizona Interagency Radio System (AIRS). The MOU is available online at: http://www.azpsic.gov/library/airs/AIRS_MOU.pdf

TICP

- Develop (or update) and approve a countywide (or region-wide) TICP to provide county-specific actionable policies and procedures for the request, activation, accountability, deactivation, and problem resolution of deployable interagency mobile communications assets.
- Incorporate all countywide interoperable communications assets from State, county, federal, and local agencies operating in the County into the TICP including MCUs, mobile repeaters, radio caches, shared channels such as AIRS, etc.
- Ensure the TICP reflects current policies, procedures, and/or standards for available countywide assets (although not necessarily county owned).
- Ensure that procedures are sufficient to provide guidance for equipment operators and users that allow them to perform in a consistent fashion.
- Distribute countywide policies and procedures, such as a TICP, and educate appropriate countywide personnel including command and communications staff, COMLs, dispatchers, etc. regarding the content of the policies.
- Ensure that copies of the TICP are placed with appropriate assets including MCUs, etc.
- Incorporate validation of the TICP into future training and exercise opportunities.
- Once a TICP is developed, follow the procedures and policies documented in the TICP in future events.

ICS Forms

- Create a countywide ICS 217A form (Communications Resource Availability Worksheet) which includes all available communications resources.
- Distribute written copies of the region-wide ICS 217 form (Radio Frequency Assignment Worksheet) to all qualified COMLs, MCUs and Communications Unit personnel.



NIMS/ICS

- Utilize NIMS/ICS to organize, manage and execute incidents and planned events.
- Place properly qualified personnel on the Unified Command Staff who possess relevant experience and have completed NIMS/ICS 100, 200, 300, 400, 700 and 800 classes.

Miscellaneous

- Mandate that NGOs, including event liaisons and private Emergency Medical Services (EMS), participate in all briefings and are co-located at the Incident Command Post throughout the entire operational period.

Element #2: Established interagency communications policies and procedures were followed throughout the event.

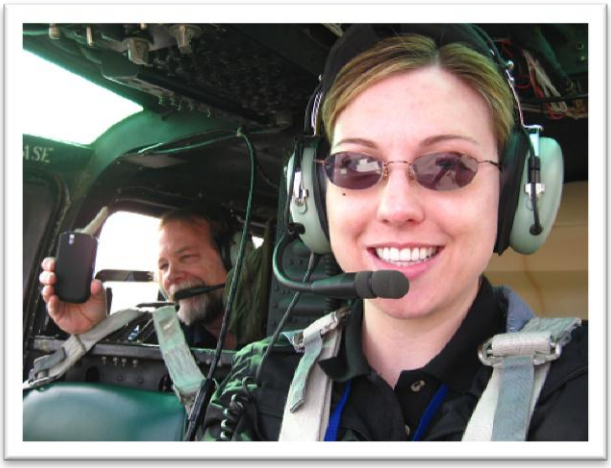
Sub-Element 2.1 Were established interagency communications policies and procedures followed throughout the event?
Sub-Element 2.2 & 2.3 Did established policies and procedures exist between responding agencies for request, activation, accountability, deactivation, and problem resolution of deployable interagency communications resources, such as mobile communications centers, gateways, and radio caches? If so, were they followed?

Observers reviewed the communications policies and procedures during the Goal 2 events to determine if responders followed them, and whether those policies and procedures were effective and complete as written. Observers also looked for instances in which policies and procedures were used for shared channels, cache radios, or talkgroups.

Ideal Performance

- Event participants closely implemented and followed the IAP and incident communications plan (i.e., ICS 205). Specifically, participants:
    - Followed the channel/talkgroup assignments contained in the ICS 205.
    - Implemented the support mechanisms (e.g., Mobile Communications Vehicle) called for in the plan in accordance with established procedures.
    - Followed the procedures and assignments as documented in the plan.
    - The county or participating agencies possessed documented policies and procedures for radio caches, MCUs, mobile gateways, and/or other mobile assets in use (e.g., mobile repeaters, satellite phones)
- Policies and procedures for specific assets were documented in a TICP or similar plan. If such a plan was present:
    - The assets in use during the event were documented in the plan.
    - Assets were deployed and used in accordance with the plan.

Lessons Learned



- Plans should reflect the operational reality of how the jurisdiction actually runs an event and how responders operate.
- All plans and personnel assignments should contain information that is correct and consistent with information contained in all other event documents.
- IAPs and communications plans can and should be reused when possible, but the documents must be updated to match the current event's needs.
- Additional training is needed to assure ICS forms are properly completed and utilized.
- TICPs should use the 2009 template[8] in order to document mobile communications assets (previous versions did not include consideration for mobile communications assets).
- TICPs or equivalent plans should be complete and include the detailed information in the appendices.

Recommendations

IAP

- Ensure that all event documentation is reviewed, revised, and complete prior to distribution. Assure that the documentation is followed by all personnel throughout the event. Double check names, position assignments, etc. before the documents are finalized for publication and use. Allow and prepare for predictable shift changes within an operational period.
- Ensure that all documents in support of an event remain consistent. As assignments change, ensure supplemental documents such as the Organization Charts are adjusted accordingly.
- Ensure that all agencies and organizations working the event are included in the IAP and participate in briefings.
- Once documentation is complete, distribute documentation to and brief appropriate personnel to assure conformance to established protocols and procedures.
- Whenever possible, print IAPs just prior to briefing for each operational period to ensure the most current information, including assignment lists, are utilized.

[8] http://www.safecomprogram.gov/library/Lists/Library/DispForm.aspx?ID=140

ICS Forms

- Identify and correct all noted deficiencies in the following forms:
    - ICS 201 form (Incident Briefing)
    - ICS 202 form (Incident Objectives List)
    - ICS 203 form (Organization Assignment List)
    - ICS 204 form (Division Assignment List)
    - ICS 205 form (Incident Radio Communications Plan)
    - ICS 205a form (Communications List)
    - ICS 205-T form (Telephone List)
    - ICS 206 form (Medical Plan)
    - ICS 207 form (Organizational Chart)
    - ICS 214 form (Unit Log Form)
    - ICS 217 form (Radio Frequency Assignment Worksheet
    - ICS 217a form (Communication Resource Availability Worksheet)
- Develop detailed response plans in support of Incident Objectives in the ICS 202 form.
- Develop an ICS 204 form for all participating response groups within an event. Be sure to include support personnel such as the Communications Unit.
- Ensure the COML prepares the ICS 205 forms.
- Prepare an accurate Organizational Chart (ICS 207 form) which includes all elements of the Command Structure.
- Use the ICS 207 form (Organizational Chart) in addition to the ICS 203 form (Organization Assignment List)
- The inclusion of an Organizational Chart (ICS 207 form) is recommended and would have clarified issues between the ICS 203 and ICS 204.
- Ensure that the information included in the ICS forms is understandable to resources unfamiliar with area operations.
- Update and distribute ICS forms based on the most current form version and information.
- Utilize the ICS Forms and ICS for all special events and major incidents throughout the County to improve familiarity.

- Provide short-form versions of communications plan "cheat sheets" to field personnel and incorporate into standard procedures and practices for pre-planned events. Include the following information:
    - Channel assignments to match radio programming and basic instructions to change zones in cache radios
    - Reminder to use NIMS compliant plain language
    - Primary communications path
    - Contingency communications path
    - Major incident communications path
    - Telephone number for the command post
    - COML radio call sign and channel
- Develop and implement the following additional forms as appropriate for future events:
    - Mass Casualty and/or Fatality Plan
    - Evacuation Plan
    - Traffic Plan
    - Demobilization Plan
    - Mass Decontamination Plan
    - Transportation Plan

SOPs

- Ensure that policies and procedures are sufficient to provide guidance for equipment operators and users that enable them to perform in a consistent fashion.
- Ensure policies and procedures address agencies dispatched by the communications center, as well as outside agencies or other responding entities.
- Request an SOP Development Workshop through the Department of Homeland Security (DHS) Office of Emergency Communications (OEC) Interoperable Communications Technical Assistance Program (ICTAP).

Miscellaneous

- Distribute policies and procedures at the event, including the TICP, to enable them to be followed.
- Brief key communications information to field and Command Staff as well as area dispatch centers involved in or around the event.
- Sub-divide the event location and layout into smaller geographic areas in order to better aid the directional coordination of responses within the confines of the event.

Element #3: Interagency communications policies and procedures across all responding agencies were consistent with NIMS.

Sub-Element 3.1 Were interagency communications policies and procedures across responding agencies consistent with NIMS?

Communications problems can arise when unclear or undefined command structures exist. NIMS and ICS provide a foundation for standard structures that improve communications interoperability. To maximize effectiveness, that foundation and structure must be mirrored in the policies and procedures developed to support communications during routine events and emergency incidents. Goal 2 observers evaluated communications policies and procedures for NIMS consistency to ensure that the principles and components of NIMS and ICS were understood and used throughout a county's response protocols.

Ideal Performance

- The TICP contained NIMS-consistent guidance, such as:
  - Information about establishing an Incident or Unified Command.
  - Policies and procedures that require the use of plain language/common terminology, agency specific unit identification, and a prioritized utilization of communications resources.
  - Information about establishing a Communications Unit and assigning a qualified COML to that position (and potentially other communications positions, as needed).
- The IAP followed NIMS guidelines, by doing the following:
  - Including complete, accurate ICS forms that contained the correct dates and times, and were signed (physically or electronically), where appropriate.
  - Including contingency plans for predictable incidents that could reasonably or potentially occur.
  - Including sufficient documentation (e.g., ICS forms 203, 204, 207) regarding the event ICS structure and personnel assignments to clearly depict a chain of command.
  - Including a comprehensive ICS 205 form that covered all participating agencies, assigned sufficient channels/talkgroups to support the event, included backup communications options, and was scalable in the event of a change in operational conditions.
- Other procedural documents contained NIMS-compliant guidelines and information regarding resource and personnel management, prioritization, scalability, and other aspects of an effective response.

Lessons Learned

- Tactical communications policies and procedures should be developed for all counties or defined regions within the State.
- SOPs should be regularly updated. Updates should focus on ensuring all current practices are accurately reflected in the SOP, such as:
    - Agency-specific unit identification
    - Request, activation, deployment, and deactivation procedures including personnel contact information

- IAPs should include all applicable ICS forms.
- ICS forms should be completely and correctly filled out, used for the correct purpose, and signed and approved. They should not contain information that conflicts with information in other forms in the same IAP.

Recommendations

IAP

- Properly complete the IAP prior to the beginning of the Operational Period through the use of proper forms including signatures on FINAL copies for all planned events and incidents.
- Include within the IAP documentation for all support personnel (i.e., Communications Unit, Logistics Unit) and for all resources.
- Develop detailed response plans in support of incidents that could reasonably occur within the confines of an event, such as the need for an evacuation, etc. Ensure that communications plans developed to support the event itself are sufficiently scalable to support these incident response plans.
- Develop a Concept of Operations Plan for how to use volunteer personnel (e.g., Boy Scouts of America, Explorers, etc.) within the confines of future pre-planned events and public safety incidents. Detail defined roles, responsibilities, expected actions, and requirements (e.g., qualifications, certifications, trainings, etc.) that clearly define how volunteers are expected to operate and interact within a public safety environment.

SOPs

- Ensure interagency communications policies and procedures are consistent with NIMS throughout the county.
- Create MOUs, IGAs and letters of authorization to allow agencies to transmit and be dispatched on other agency frequencies, should the need arise.
- Ensure that legal agreements for use of shared channels are in place among all agencies.
- Distribute policies and procedures at each event to enable them to be followed.

NIMS/ICS

- Utilize the ICS forms and incorporate NIMS/ICS principles for all special events, major incidents and pre-planned events throughout the County to improve familiarity.
- Ensure that all ICS forms and associated event/incident documents are signed by their authors as required by NIMS/ICS.
- Incorporate NIMS/ICS principles into joint and single-agency public safety operations throughout the County.
- Ensure that all staff re-familiarizes themselves with NIMS/ICS 100, 200, 700, and 800 classes. In addition, ensure Command Staff re-familiarize themselves with NIMS/ICS 300 and 400 classes.

Element #4: A priority order for use of interagency communications resources was followed as established in standard operation procedures or plans, such as the TICP.[9]

Sub-Element 4.1 & 4.2 Does a priority order exist for use of interagency communications resources (e.g., life safety before property protection)? Was this prioritization of communications resource use followed?

Unforeseen incidents or emergencies occurring at the same time as or within a planned event may create conflicts. Also, simultaneous and conflicting demands for shared resources can arise during response operations. By establishing priorities for use, agencies can define an order of operations to allocate scarce assets and avoid degrading operational effectiveness or unnecessarily jeopardizing life or property.

[9] In most cases for the National Emergency Communications Plan Goal 2 environment using planned events, the involved jurisdictions did not have to invoke the priority order because most participating agencies had internal policies or procedures for utilizing their agency-controlled assets, and committed them during the pre-event planning process.

Ideal Performance

- The TICP or other SOP contained comprehensive policies and procedures specific to the county or defined region relating to the prioritization of communications resources.
- The TICP or other SOP assigned a detailed and clearly distinguishable hierarchy for utilization of communications resources which placed large-scale, life-safety incidents at the top.
- The IAP contained contingency planning for obtaining and utilizing additional communications resources, if needed.

Lessons Learned

- Some TICPs or SOPs contained no policies or procedures designating a priority order for use of communications resources.
- TICPs and SOPs should accurately reflect current prioritization practices in the region.
- TICPs and SOPs should avoid placing conflicting hierarchies in multiple places throughout the document.

Recommendations

IAP

- Develop detailed response plans in support of incidents that could reasonably occur within the confines of an event.
- Ensure that communication plans developed to support the event itself are sufficiently scalable to support these incident response plans.
- Expand the channel plan (and related priority order listings) for Law Enforcement operations during the event in order to accommodate increased emergency traffic.
- Include additional talk paths to separate and therefore better isolate radio traffic based on functional or geographic locations.

SOPs

- Develop and implement a written priority order for use for County frequencies. [Note: The Arizona Statewide Interoperability Executive Committee (SIEC) has published a priority order for use of AIRS channels available online at: http://www.azpsic.gov/library/airs/ and it may be helpful as a starting point.]
- Develop a written priority order for the use of all communications resources (e.g. cache radios, mobile command units, interoperable communications channels, etc.).
- Follow the established priority order for all communications resources.

- Assure that the command structure and proper procedure is followed in instances when resources devoted to the event are needed for other incidents.
- Establish formal interdepartmental policies for shared use frequently utilized frequencies.
- Incorporate a standardized emergency traffic policy in SOPs countywide to increase familiarity with the procedure and use common/familiar terminology for emergency traffic.

Communications Procedures

- Establish a Command Net channel to be utilized by Command and General staff and utilize tactical channels for other radio traffic.
- Educate all responders on the purpose of a Command Net channel and advise them who should be monitoring it and who is considered an eligible user of the channel and when.
- Identify separate frequencies for each functional Branch, Division, or Group so that communications are routed more efficiently and effectively.
- Limit roll calls to agencies directly involved in the event.
- Conduct wants and records checks on a channel other than the primary operational channel.

Communications Improvements

- There are multiple options for improving countywide public safety communication. Options to explore include (subject to funding considerations):
    - Take advantage of newly available bandwidth in the VHF spectrum created by narrow banding to increase public safety communications coverage. Apply for additional narrow banded frequencies to allow for expansion of communications capabilities.
    - Add microwave equipment to existing sites to more effectively connect to other sites.
    - Add voter receivers to increase communications coverage in remote areas.
    - Co-locate infrastructure at existing Highway Department equipment locations to provide enhanced coverage.
    - Partnering with other regional systems or the State microwave network.

Element #5: A primary interagency operations talk path was clearly established by procedure and communicated to responders early in the event.

Sub-Element 5.1 & 5.2 Was a primary interagency communications talk path clearly established by procedures used during the event? If not, was such a talk path established ad hoc and communicated to responders early in the event?

The ability of emergency responders from different agencies to communicate by radio is at the heart of communications interoperability. To facilitate radio communications, primary interagency talk paths should be established for routine use by responders. Although there are several methods by which communications specialists can designate or engineer talk paths (e.g., trunked talkgroup, conventional channels, combination of channels tied together by a gateway), the outcome should always be a clearly identified, reliable communications pathway for responder information sharing across agencies, disciplines, and/or jurisdictions. Safe, efficient, and effective operations can be degraded if a primary interagency talk path is not reliably established and clearly announced early in an incident, event, or exercise.

Ideal Performance

- All communications assignments, including the designation of LMR-based interagency talk paths, were identified and documented during pre-event planning processes.
- The ICS 205 for the event clearly designated at least one talk path for interagency communications and specified the intended or authorized users (e.g., primary operational leadership, command and general staff, response-level personnel).
- In the event of multiple interagency talk paths, the intended and authorized use of each was clearly described on the ICS 205.
- Command and other primary operational leaders knew and were capable of accessing established interagency talk path(s).

Lessons Learned

- Talk paths identified for an event should be readily accessible for all designated users of those paths. To achieve this:
    - The channels or talkgroups used should be programmed in the radios
    - The users should know how to access the talk paths on their radios
    - The talk paths should be within the coverage footprint of radio system(s) and subscriber radios being used for the event
    - The talk paths should have the capacity to support the number of intended users
- In some instances, participating responders operated exclusively on their own agency channels or talkgroups instead of using an interagency talkpath.
- In some cases, Incident Command and primary operational leadership were co-located in a Unified Command Post. While beneficial for communication purposes, agencies should still identify a shared talk path for when conditions require command personnel to operate from separate locations.

Recommendations

SOPs

- Review current channel plans for accuracy (of naming convention, frequencies, and Continuous Tone Coded Squelch System (CTCSS) tones) and revise into a radio template for use by all agencies within the county using a standardized naming convention.

ICS Forms

- When appropriate, mandate that Non-Governmental Organizations (NGOs) are identified within the Organizational Chart, complete ICS training appropriate for their position, participate in all briefings, and have a liaison at the Command Post during the operational period.

NIMS/ICS

- Co-locate all Command and General Staff in secure Unified Command away from the public in order to foster better face-to-face communications and allow the Command Staff to concentrate on duties at hand rather than answering public inquiries.

Communications

- Designate and properly use a Command Channel for future events and incidents to allow for expedited communications among members of the Unified Command and their staffs, to isolate event communications from day to day communications and/or for ordering additional resources, as needed.

- Conduct a regular scheduled radio test on the local AIRS channel.
- Consolidate radio traffic to operate within one frequency spectrum, when possible.
- Utilize public safety frequencies for the Command Net channel.
- Ensure that all command staff and the COML are able to communicate on the designated command channel.
- Pre-designate interoperability talk paths for response-level personnel to use if they need to directly communicate with other responders not on the designated event talk path. Ensure all field personnel know when and how to utilize these talk paths.
- Identify an interagency talk path for outside responding agencies and document it within the ICS 205.
- Enable communication with volunteers through a cache radio assigned to their coordinator.
- Utilize equipment that is owned and maintained by public safety agencies to ensure familiarity with the equipment by public safety personnel and access to spare parts and accessories for subscriber units.
- Provide cache radios to any supporting agencies and Non-Governmental Organizations (NGOs), or those operating outside of the primary frequency spectrum (for example, give DPS and event organizers public safety cache radios to communicate with Command).
- Use AIRS or national or local interoperable communication channels to support interagency communications more effectively.
- Consider applying for a grant to build out the AIRS System locally.

Element #6: Common terminology and plain language were used in all interagency communications.

Sub-Element 6.1 Was plain language used throughout the event?
Sub-Element 6.2 Did any communications problems arise amongst the primary operational leadership due to a lack of common terminology?
Sub-Element 6.3 Did any communications problems arise amongst other response-level emergency personnel during the event due to a lack of common terminology?

Both the NECP and NIMS emphasize the importance of common and consistent terminology for communications interoperability, including the use of plain language rather than agency-specific coded substitutions during interagency communications. Using plain language and common terminology helps ensure communications are timely, clear, acknowledged, and understood by all receivers.

Ideal Performance

- Responders used plain language exclusively during the event (i.e., no codes or signals were heard during interagency communications).
- Primary operational leaders from multiple agencies, disciplines, and jurisdictions effectively communicated among themselves by any means (e.g., face-to-face, radio, electronically) with no communications impediments caused by lack of common terminology.

Lessons Learned

- Radio codes and signals were not frequently used during events.
  - Agencies in a few counties continued to use coded substitutions during interagency communications.
- Agencies in several counties were unaware that some coded language is sanctioned by NIMS/ICS when used to enhance tactical and personal safety.

Recommendations

IAP / SOPs

- Document the use of plain language in the IAP(s) for future pre-planned events.
- Take steps toward the adoption of the use of plain language policies for operable communications scenarios and implement the use of plain language for all interoperable communications countywide.
- Ensure that any codes retained for safety/security purposes are universally understood across all disciplines and agencies operating within the County.

Usage

- In briefings and throughout an operational period, remind personnel to use plain language. For example, consider strategically placing reminders where public safety personnel will see it.
- Encourage countywide responders and communication specialists to use plain language or tactical language whenever appropriate.
- Incorporate plain language protocols and/or training into future multi-agency planned events. Firmly establish these protocols during non-emergency events in order to effectively utilize their benefits during emergency incidents.
- Conduct and/or participate in future training and exercise opportunities that facilitate on-going interactions between all agencies working within the County to continue strengthening the use of common terminology.

Element #7: Clear unit identification procedures were used.

Sub-Element 7.1 Were clear unit identification procedures used amongst the primary operational leadership?
Sub-Element 7.2 Were clear unit identification procedures used amongst other response-level emergency personnel throughout the event?

Ambiguous unit identification procedures can impede interoperability when responders, communications specialists, and command staff cannot clearly identify users over the radio. Unclear unit identification protocols can obscure a user's identity, agency, discipline, and assignment. Such confusion can cause operational challenges, from incorrect or delayed dispatch of resources to missed communications to chain of command issues. Unit identification protocols within a given incident should provide clear, unambiguous information regarding every unit in a way that avoids confusion and promotes responder effectiveness and safety.

Ideal Performance

- When using LMR communications, *primary operational leaders* used a single, consistent unit identification protocol for both staff members and key event locations. This protocol was consistent with the protocol specified in their IAP. For example:
    - ICS position titles for Command and General Staff
    - Multi-agency unit identification protocols (i.e., agency name followed by radio number or call sign) specified in the TICP
    - Exception: when face-to-face, calling each other by name—in deference to existing regional relationships—was acceptable

- When using LMR-based radio communications, *response-level personnel* used a single, consistent unit identification protocol for both staff members and key locations. This protocol was consistent with the protocol specified in their IAP. For example:
    - Appropriate ICS position titles (e.g., Branch Directors, Division/Group Supervisors, Strike Team/Task Force/Unit Leaders, etc.).
    - TICP-specified multi-agency unit identification protocols (i.e., agency name followed by radio number or call sign).
    - Agency-specific unit identifiers (i.e., day-to-day call signs or radio numbers) were augmented by function or location to clearly identify their role/position within the event.

Lessons Learned

- Inconsistent unit identifier variations used during the event caused confusion (e.g., names, ICS position titles, post numbers, apparatus identifiers, special event numbers, location-specific identifiers).
- Repeated use of the same names for different locations within the event (e.g., multiple "command posts" for different agencies, multiple "communications" centers for various dispatch or radio sites) caused confusion.
- Responders reverted to day-to-day unit identifiers or names if they could not remember the assigned unit identifications for that event.

Recommendations

SOPs

- Establish and document countywide agency and unit identification protocols for interoperable communications. Specifically, denote uniform identification protocols for all interoperable communication instances regardless of the communication asset(s) in use.
- Incorporate the use of NIMS consistent unit identification protocols during all multi-agency communication situations, including incidents, pre-planned events, training, and exercise opportunities throughout the county.
- Response level personnel should follow written department / agency radio designator policies during interagency incidents and events to communicate with other response level personnel within assigned ICS workgroup (division/group/task force/team/unit).

IAP

- Utilize NIMS/ICS to develop IAPs for all events and incidents to increase familiarity with the process.
- Clearly identify unit locations on maps and/or division/group assignment lists and the medical plan.
- Avoid using Name/Location/Position titles that could cause confusion within a developed command structure.
- Avoid assigning dual key roles to members of the Primary Operational Leadership.
- Ensure naming conventions for significant locations and/or functions within a pre-planned event to be both NIMS compliant, clear to all event personnel, and sufficiently scalable to support the event and any incidents that may arise during the event.
- Clearly assign identifiers on the IAP Organizational Chart and ICS 204 forms. Maintain consistency and refer to units as they have been designated and documented.
- Require that the use of Agency call signs not be used by Command Staff once Incident Command has been established.

- Units should not be referred to with generic terms such as "Team 1", but rather a functional or geographical call sign such as "North Traffic".
- Identify a Unified Command Post as such and consider adding an event-specific title such as "Festival Command."
- Mandate that Non-Governmental Organizations (NGOs), including festival liaisons that are identified within the Organizational Chart, complete ICS training appropriate for their position, participate in all briefings, and be at the Command Post throughout the entire operational period.

Training/Exercises

- Enforce and/or incorporate the use of NIMS consistent unit identification protocols during all multi-agency communication situations, including in future training and exercise opportunities throughout the county.

Miscellaneous

- Utilize clearly visible and identified vest, placard and other means to identify an individual's organizational position.
- Consider creating interdisciplinary Task Forces instead of separate Divisions if units will be active in a Task Force capacity during an event.
- Use different call signs for different disciplines or provide response-level personnel with call-sign information.
- Equip golf carts, watercraft and other non-official vehicles with visible markings to identify their call-sign and function.

Element# 8: Common channel names were used for designated interoperability channels.

Sub-Element 8.1 Were common names used by all responding agencies for interagency communications channels?
Sub-Element 8.2 Were standard names as identified in the National Interoperability Field Operations Guide (NIFOG) used for Federal Communications Commission (FCC)-designated interoperability channels?

The NECP stresses the importance of common channel names to minimize confusion among response agencies. Evaluators reviewed participating agencies' channel naming protocols to ensure shared channels were labeled consistently in mobile and portable radios, in various policies and procedures, and when referred to verbally. Disparate channel names have been identified as an impediment to interagency communications, making it difficult for responders to identify common channels.

Ideal Performance

- Utilized the Arizona Statewide Interoperable Channel Plan – Priority Programming Guides, which include standard names for national channels as identified in the NIFOG.
- When State, regional, or local radio systems were used as primary communications system(s) supporting the event, all system-wide channels and talkgroups were named identically in the following instances:
    - Portable and mobile radio programming
    - Dispatch center radio console and control station programming
    - TICP, SOPs, memorandums of understanding/agreements, or other documentation
    - IAP documents, ICS forms (e.g., ICS 201, 204, 205, or 217A), or in other event-specific documents
    - Verbal communications

- Naming of Federal Communications Commission (FCC)-designated interoperability channels matched standard NPSTC nomenclature in all locations.

Lessons Learned

- Names programmed into radios did not always match what was referenced in verbal communications and listed in event paperwork, the TICP, and other SOPs.
- Deviation from the NPSTC nomenclature occurred for several reasons, including:
    - Discrepancies in re-banding across sites
    - Lack of awareness of NPSTC naming conventions
    - Differences in radio display capabilities
    - Lack of financial or human resources required to complete the necessary radio reprogramming (e.g., waiting for opportunities such as re-banding, narrowbanding, or other maintenance contact with the radio)
    - Personal site preference for a previously chosen name

Recommendations

ICS Forms

- Develop a clear ICS 205 form, which includes identifying channel names as they would be displayed in the radios. [Note: Until all interagency communication channels are labeled consistently, use the remarks column in the ICS 205 form to identify channels that are not named consistently].
- Improve pre-event planning coordination between the COML and involved agencies to ensure correct naming conventions are included on the ICS 205 form and all other paperwork.
- Provide a "Cheat Sheet" in the case where radio alpha displays do not match the ICS 205 form.
- Ensure the correct Wideband or Narrowband ID is noted for all channel names listed in the Communications Plan.

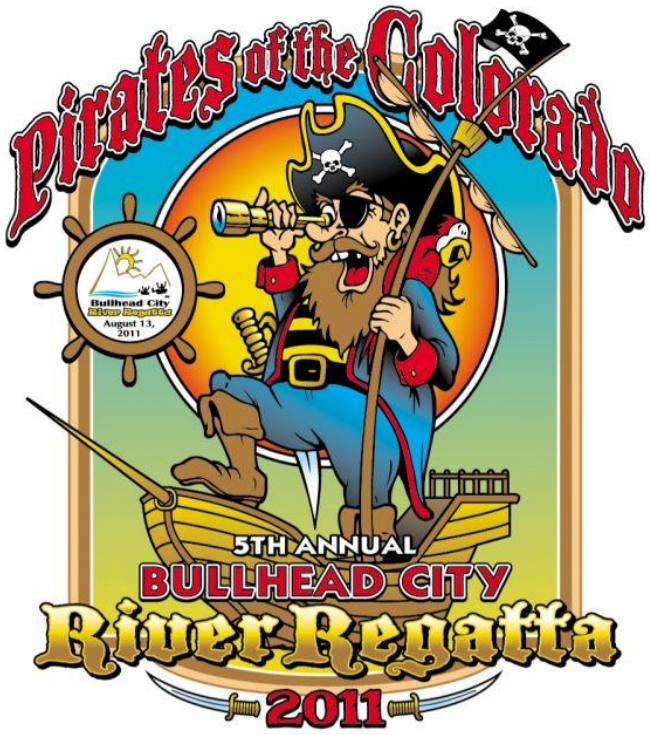
Radio Programming

- Use National Public Safety Telecommunications Council (NPSTC) naming conventions for all interoperable channels.
- Ensure all responding agencies use common names for interagency communications channels during incidents and events.
- Ensure that all shared communications assets also share a consistent naming convention throughout the county.
- Ensure all radios are programmed with a consistent code plug/template that standardizes all frequencies, display names and locations within all radios.

- Ensure that radio programming (specifically for radios with a visual display) exactly match the accepted naming convention for that channel/talkgroup.

SOPs

- Adopt and utilize the Arizona Statewide Interoperable Channel Plan – Priority Programming Guides, which include standard names for national channels as identified in the NIFOG, available at: http://www.azpsic.gov/library/standards/ to enhance the county's capacity to handle events.
- Consider adopting standard naming conventions for FCC-designated channels, as appropriate, for radios without character limitations.
- Formalize channel naming conventions and create a County ICS 217 form (Radio Frequency Assignment Worksheet) to reflect these conventions for all talk paths.
- Standardize the naming of VFIRE21W to match the NIFOG and update the written fire policy manual.



Responder Roles and Responsibilities

In addition to sound policies and procedures, common, consistent, and clearly defined responder roles during emergencies promote effective response-level emergency communications among agencies. NIMS was adopted nationwide as a standard template for collaborative incident management during response operations. Because command, control, and communications are linked, impediments in one area can impact other areas. For Goal 2 events, observers reviewed key facets of responder roles and responsibilities to determine how responders executed various ICS functions. Failures in these functions can disrupt communications despite the availability of otherwise adequate communications resources, procedures, and training.

To assess the effectiveness of organization and operations, Goal 2 observers examined the following three areas at each event: (1) unity of operational command; (2) maintenance of a manageable span of control among operational leadership; (3) and the execution of the roles and responsibilities of the COML. According to the ICS definition, "unity of command" means that "all individuals have a designated supervisor to whom they report at the scene of the incident." Maintaining a clear chain of command is particularly important for communications interoperability because "blending" agencies and disciplines in multi-agency response creates chains of command unique to the event. The lack of clear lines of command within the incident results in mixed and misused lines of communications.

Element# 9: Multiple organizations with inherent responsibility for some portion of the event were present and joined in a unified command with a single individual designated with Operations Section Chief responsibilities.

Sub-Element 9.1 Did a single individual carry out the Operations Section Chief responsibilities in each operational period?

The primary operational leadership of a multi-agency incident response includes the ICS Operations Section Chief and their first-level subordinates. These leaders, working with the COML, convey information from on-scene responders to the Incident or Unified Command. The process also works in the other direction, allowing Incident or Unified Command to provide policy direction specifically to operational leaders in the ICS structure. Absence of a single designated Operations Section Chief dilutes and complicates this important exchange of information.

Ideal Performance

- A single Operations Section Chief was designated for each operational period and clearly fulfilled the functions associated with the role.
- In all incident-related documents, the Operations Section Chief was clearly and consistently designated.
- Responders could always readily identify the designated Operations Section Chief throughout the event.
- If the Operations Section Chief had to change responsibilities for any reason, an alternate Operations Section Chief was assigned and the change was communicated appropriately to event personnel.

Lessons Learned

- A single Operations Section Chief appropriately supported by Branch Directors and Division or Group Supervisors was not always designated during the events.
- Designated Operations Section Chiefs were not always qualified, capable, or empowered to carry out the responsibilities of that position across all agencies participating in the event.
- When the designated Operations Section Chief needed temporary relief from their duties, a replacement Operations Section Chief was not always designated or announced to event personnel.

Recommendations

NIMS/ICS

- Designate a single Operations Section Chief to make operational decisions and assignments.
- Designate a single individual to carry out the role of Operations Section Chief for the duration of each Operational Period. Create two Operational Periods if a single individual is not able to perform the role of Operations Section Chief for an event in excess of 12 hours.
- Designate a Deputy Operations Section Chief to support the Operations Section Chief and enable short breaks by that individual during the Operational Period.
- Establish and/or utilize NIMS compliant Unified Command for all multi-jurisdictional, multi-agency and multi-discipline events and incidents.
- Place properly qualified personnel within the Unified Command Staff.
- Maintain stable and consistent roles for other key Command Staff during each operational period.
- Although it is acceptable for the Incident Commander and Operations Section Chief roles to be combined for an event (due to small size), consideration should be given in future events to divide these roles to allow for scalability and span of control.

Training/Exercises

- Conduct training and exercises utilizing elements from the NECP, including use of Unified Command, proper use of Command Staff and the development of an IAP.
- Provide additional NIMS/ ICS training and exercise opportunities to all personnel.

Location

- Co-locate all Command and General Staff in a secure Unified Command Post.
- Generally, the Operations Section Chief should remain in one designated location throughout the event.

Staffing

- If the Operations Section Chief needs to move to address operational needs, consider having him/her delegate these issues and the needed movement to the Deputy Operations Chief.
- Increase staffing levels to allow for Command Staff, including the Operations Section Chief, to remain clear of tactical responsibilities.
- Ensure that the COML is only responsible for normal COML functions.

Element# 10: Span of control was maintained amongst the primary operational leadership: the Operations Section Chief and first-level subordinates.

Sub-Element 10.1 Did the Operations Section Chief directly manage more than seven subordinates at any time?
Sub-Element 10.2 Did first-level subordinates to the Operations Section Chief directly manage more than seven subordinates at any time?

Span of control is considered to be a key element of effective and efficient incident management. Supervisors must be able to adequately supervise and control their subordinates, as well as communicate with and manage all resources under their supervision. ICS establishes initial responsibilities with the Incident Commander (IC) and provides guidance for delegating those responsibilities as the incident expands.

NIMS/ICS establishes span of control management principles – these principles designate the role/responsibilities of intermediate ICS supervisory positions. In accordance with these principles, supervisors should manage between three to seven subordinates. Expanding beyond this number can result in communications problems as there are too many responders trying to communicate with one supervisor.

Ideal Performance

- Consistent with NIMS principles, the event established a single Operations Section Chief who directly managed no more than seven subordinates (e.g., Deputies, Branch Directors, Division or Group Supervisors, and Unit/Strike Team or Task Force Leaders).
- Operations Section subordinate supervisors directly managed no more than seven additional subordinates.
- Span of control was documented using standard ICS forms (e.g., 203, 204, 207) clearly specifying a chain of command hierarchy from the Incident or Unified Command level down to response-level tactical functions.

Lessons Learned

- Span of control was sometimes exceeded with too many subordinates directly reporting to organizational leadership and first-level subordinates.
- The organizational structure documented was not always consistent with the actual organizational structure used during the event.
- In some instances, operational positions were arbitrarily moved to other sections (e.g., Logistics), leading to reporting structures that exceeded span of control limits.
- ICS forms were sometimes incomplete or had inaccurate information on personnel assignments and organizational structure (e.g., ICS 204 differs from ICS 203 and ICS 207).
- In most instances where the span of control was exceeded, the ability to effective manage the event/incident was compromised.

Recommendations

NIMS/ICS

- Designate an Operations Section Chief for all multi-agency incidents and events.
- Ensure the Operations Section Chief does not supervise more than seven subordinates at any time for any reason.
- Ensure that each supervisor in an event's organization maintains the NIMS-recommended span of control for their subordinate personnel.
- Designate sufficient supervisory staff to fill all needed ICS positions in support of large and/or complex incidents and events.
- Review span of control protocols at all levels of an event organization to ensure that no individual retains responsibility for more personnel and/or information than they can reasonably handle.
- Develop plans to further divide personnel into Functional Units or Groups should incidents arise that threaten to overwhelm a supervisor or exceed a reasonable span of control.

Training/Exercises

- Conduct training and exercises utilizing NIMS Compliant Unified Command structure and proper use of Command Staff.
- Require demonstrated proof of successful completion of NIMS/ICS classes.

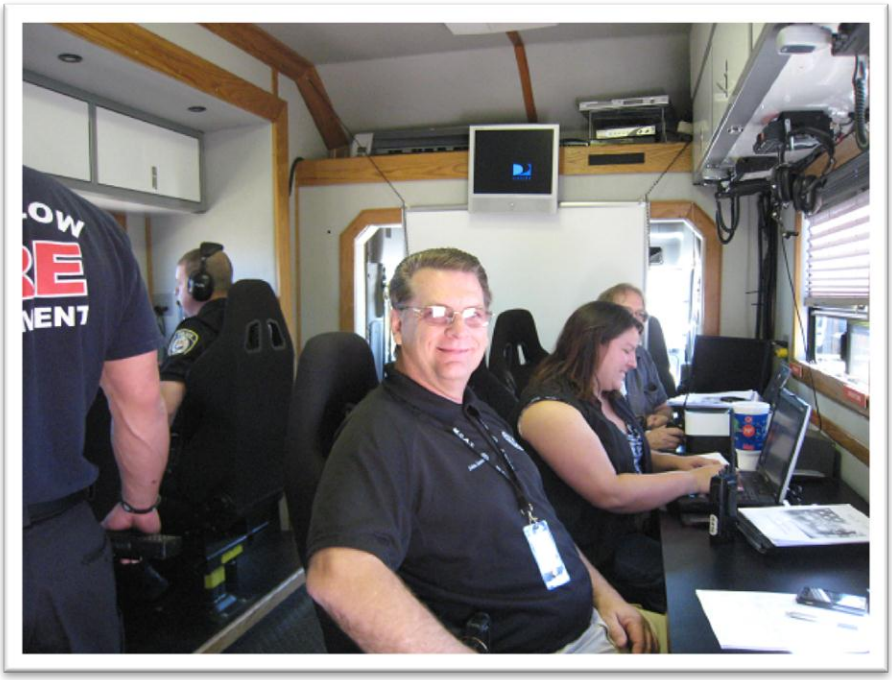
IAP / ICS Forms

- Utilize the ICS forms and ICS for all special events and major incidents throughout the County to improve familiarity.
- Ensure the Organizational Chart and ICS 203 forms are properly completed, synchronized and followed.

- Clearly delineate the authority, roles and responsibility of the Operations Section Chief and all others on the Organizational Chart.
- Ensure that each Branch, Division, or Group has a completed ICS 204 form documenting the proper span of control.
- Ensure that all documents in support of an event remain consistent with one another. As assignments change, ensure that supplemental documents such as the Organization Charts are adjusted accordingly.
- Utilize first level subordinates to the Operations Section Chief as indicated in the IAP.
- Follow the IAP, and utilize the Branch Supervisors to maintain appropriate span of control.

Miscellaneous

- The Incident Commander shall refer misdirected radio communications from Branch Directors to the Operations Section Chief.
- Operations Section Chief shall refer response level personnel to the proper contact under NIMS structure.
- Mandate that private EMS be more involved in all planning meetings and adhere to NIMS/ICS.



Element# 11: COML roles and responsibilities were carried out by the IC/UC or designee. Necessary communications resources were effectively ordered using documented procedures, and a communications plan was established by procedure or developed early in the event.

Sub-Element 11.1 Was the ICS Communications Unit Leader (COML) position specifically filled during the event?
Sub-Element 11.2 & 11.3 Were COML roles and responsibilities carried out, either by the Incident Commander (or Unified Commander), the COML, or another designee? Who by position or function carried out the responsibilities?
Sub-Element 11.4 & 11.5 Were necessary communications resources effectively ordered? Were they ordered using documented procedures?
Sub-Element 11.6 & 11.7 Was a Communications Plan established by procedure or developed early in the event? Did the Communications Plan meet the communications needs of the primary operational leadership?

The ICS COML[10] function is a well-established means of improving communications interoperability. The COML is responsible for integrating communications to support an IAP within a given incident, planned event, or exercise. Primary COML responsibilities include determining communications resource needs, preparing and maintaining an Incident Radio Communications Plan (ICS 205), and obtaining and deploying the various communications assets needed to effectively establish communications in support of the operation.

Ideal Performance

COML

- A single individual filled the COML position for the event.
- The COML for the event was designated in advance, was clearly identified as the COML in all event-related documentation, and was the author and signer of the ICS 205 for the event.
- All COML roles and responsibilities were carried out or delegated to other Communications Unit personnel by the COML designated for the event.
- The COML ordered and obtained the necessary resources to effectively support planned and anticipated communications during the event.

[10] The Communications Unit Leader (COML) is responsible for developing plans for the effective use of incident communications equipment and facilities, managing the distribution of communications equipment to incident personnel, and coordinating the installation and testing of communications equipment during a response. The COML is a recognized position within the National Incident Management System's Incident Command System.

Communications Plans and Documentation

- The Communications Plan was developed prior to the event, ideally by the event COML.
- The Communications Plan and other communications-related documents were completed correctly and included information regarding assignments, policies, systems information, and backup. These forms were date and time-stamped and distributed as needed.
- The Communications Plan used the current version of the ICS 205.
- The Communications Plan was disseminated to all applicable sites associated with the event, including public safety communications centers, EOCs, and MCVs.
- The COML briefed the Communications Plan to all incident/event staff during the event briefing.

Lessons Learned

- The COML was not always designated before the event.
- Communications-related activities were not always coordinated through a single COML.
- In some cases, the COML was not involved in pre-planning and documenting communications plans.
- Some COMLs failed to coordinate their actions with primary operational leadership.
- The Communications Plan was not always included in the event briefing.
- Some counties lacked procedures for designating a COML for incidents and/or for establishing a Communications Unit staffed with the positions necessary to support an incident or event.
- Changes to the ICS 205 were not always distributed and explained to staff.
- Notable problems with ICS 205s included the use of multiple, incomplete, inaccurate, unsigned, or undated forms.

Recommendations

Communications Unit Positions

- Designate a COML for all multi-jurisdictional, multi-discipline events and incidents and require the position be filled by a person who has successfully completed a COML training course.
- Require a qualified COML to be on site at all times during an event or incident to effectively manage all aspects of the event Communications Plan.
- Ensure the COML is dedicated solely to public safety communications. Avoid unduly burdening the COML position with additional operational roles and responsibilities.
- Clearly designate members of the Communications Unit and denote their chain of command and responsibilities within the confines of the incident or event.

COML Responsibilities

- The COML shall prepare and execute a Communications Plan with information provided by involved agencies and NGOs reviewed and confirmed for accuracy.
- Preparation of the ICS 204 (as applicable), 205T, 205 and 205a forms for all events and incidents in the County and/or review of these for accuracy and consistency is to be conducted by the COML. Additionally, require a second qualified person to perform a follow-up review.
- The COML should brief members of the Primary Operational Leadership.
- Ensure the COML conducts a separate detailed briefing to all members of the Communications Unit Staff regarding communication policies and procedures, their established authority levels, responsibilities, and expectations.
- Ensure the COML plans for and anticipates escalation of events and incidents within confines of events and orders resources accordingly.
- Ensure utilization of specified backup resources when channels become overloaded.
- Ensure that communication systems are installed and tested prior to use.
- Test cache radios prior to deployment.

IAP / ICS Forms

- Develop an ICS 204 form for the Communications Unit.
- Include all frequencies that may be used on the ICS 205 form and ensure that the ICS 205 has an appropriate number of talk paths to ensure communications scalability.
- Accurately complete an ICS 205 form (utilizing the current version of the form) to include proper radio programming, accurate frequencies, and CTCSS tones.

- Include the COML's phone number, call sign, assigned channel, signature and date on the ICS 205 form.
- If multiple radios types are utilized create a "cheat sheet" to direct units where the channels are located within each radio.

Communications Plans / Documentation

- Develop a comprehensive Communications Plan that includes all involved agencies and frequencies to include backup talk paths.
- Ensure talk paths specified in the Communications Plan provide adequate coverage for the event or incident area.
- Expand the Communications Plan to include additional talkgroups/talk paths to handle surge capacity and special needs that may arise during the event, such as use of National Interoperable Channels as listed in the NIFOG.
- Follow the established Communications Plan and make sure the plan and IAP are scalable.
- Use the ICS 217 form (Radio Frequency Assignment Worksheet) as a tool for assessing available resources for events.
- Ensure that a broad group of regional communications personnel are capable of developing Communications Plans in support of incidents or events, as needed.
- Divide Law Enforcement activities onto multiple channels based on geographic or functional location and provide a separate path for records checks (such as the county's normal information channel).

Training/Exercises

- Adopt and/or develop COML and Communications Unit policies and protocols which clarify the training and qualifications required to fill each designated Communications Unit position (such as COML, COMT and Radio Operator [RADO]).
- Require the COML position be filled by a person who has successfully completed a federally approved All-Hazards COML training class.
- Establish procedures and provide training to all communications centers and Incident Command Staff in the County to ensure the COML manages all aspects of the event's Communications Plan.
- Require that communication staff positions be filled by personnel who have completed training relevant to their position, such as COMT and EMD.
- Ensure the communications staff completes ICS 100, 200, 300, 700, and 800 classes.
- Develop local resources that can receive training and fulfill the COML roles and responsibilities.
- Ensure COMLs pursue continued educational opportunities through classes, and active participation in communications exercises.

- Practice resource ordering according to documented procedures during exercises.

Specific Talk paths / Communications Resources

- Separate event communications from day to day communications elsewhere in the County.
- Include standardized tactical dispatch operations in all applicable future incidents and events.
- Ensure that all frequencies in use are properly licensed, including signing an MOU for the use of AIRS at the municipal and county level.
- Use AIRS, as available, to support interagency coordination more effectively.
- Include an Air Operations (Landing Zone) channel for medical helicopter usage.
- Include a talk path for communicating with the Arizona Department of Public Safety.
- Deploy cache radios to DPS personnel in order to move them off of the District channel and to allow for communications on a VHF radio.
- Create a resource list providing contact information for qualified All-Hazards COMLs and include that information in a county TICP.

Miscellaneous

- Require specificity from State, county, federal, and local agencies operating in this County when requesting available capabilities and resources.
- Consider topographical limitations when using non-repeated channels.
- Consider use of appropriate CTCSS Tones to mitigate potential interferences with radio transmissions.

Communications System Quality and Continuity

LMR systems are the primary method for transmitting mission-critical voice communications among public safety personnel and emergency response agencies. Responders rely on analog, digital, conventional, and trunked LMR technologies to provide push-to-talk voice communications with sub-second call set-up times, high levels of call completion, and geographic coverage and availability. Counties were assessed on their ability to sustain communications at all times during the event, to provide backup capabilities should existing communications systems falter, and to coordinate personnel and equipment effectively during response. In order to measure these capabilities, observers reviewed each county's performance during the event, as well as their pre-event planning and documentation to create a more thorough picture of their ability to handle complex communications challenges that may arise during a response.

Element# 12: No more than one out of 10 transmissions was repeated amongst the primary operational leadership due to failure of initial communications attempts.

Sub-Element 12.1 Were more than one out of every 10 transmissions repeated due to failure of initial communications attempts amongst the primary operational leadership?

A lack of repeated transmissions is a key indicator of effective communications. Any number of technical, procedural, and even environmental factors may lead to the need for repeated transmissions. However, repeated communications can impact effectiveness, jeopardize operations, increase the risk of information loss, and waste shared resources. Goal 2 observers monitored event communications carefully for significant instances of repeated transmissions and sought to identify the factors that resulted in the need to repeat transmissions. Consequently, recommendations may point to localized solutions or suggest corrections to the broader communications environment of an event or region.

Ideal Performance

- There were limited or no instances in which radio transmissions were repeated for any reason.
- Radio system(s) used during the event provided effective coverage, clear transmissions, and good audio quality on all employed talkgroups and channels.

Lessons Learned

- Background noise was an occasional impediment to effective communications.
- The use of external speakers in some locations where multiple radios were in use created background noise that inhibited communications.
- Planned patches should be tested prior to an event/incident using sample equipment from the patched agency.

Recommendations

Communications Plans and Documentation

- Ensure talk paths specified in the Communications Plan provide adequate coverage for the event or incident area.
- Request clarification on missed transmissions over the air to assure that live radio traffic is not missed.

Organization

- Co-locate all Command and General Staff in a secure Unified Command Post.
- Locate the Unified Command Post in a strategic location away from high traffic areas.
- The Incident Command and Operations Section Chiefs shall remain in the Incident Command Post with very few exceptions.
- Clearly limit and delineate the roles and responsibilities of the Site Security Branch Chief.

Communications

- A COML shall be on-site to effectively manage requests and deployment of communication resources and assets.
- Ensure that the COML monitors and actively troubleshoots communications difficulties and implements pre-determined and ad-hoc mitigation strategies.
- Establish a cache of 700/800 MHz radios that can be deployed to supplemental Units involved in multi-agency or multi-jurisdictional events and incidents.
- Consider mounting a gain antenna on the elevated mast of the Incident Command Vehicle to provide vertical separation and greater coverage.
- Ensure that communication systems are installed and tested prior to use.
- Utilize CTCSS Tones to mitigate interference.

- Load information for subscriber units from other mutual aid jurisdictions where the frequency of use would merit the cost

Miscellaneous

- In a larger event, Primary Operational Leadership should be prepared to use handheld radios to monitor radio traffic and perform command functions directly.
- Train officers on the proper use of equipment in order to alleviate front end clipping.
- Purchase and deploy speaker microphones, ear pieces, and headsets as appropriate and needed for events and incidents.
- Provide proper hearing protection and noise cancelling accessories such as headsets and/or ear pieces for events with high levels of ambient noise.
- Implement the use of headsets and foot pedals instead of speakers and desk microphones in dispatch centers.
- Link each CAD dispatch position into ACJIS directly.

Element# 13: Upon failure or overload of any primary communications mode, a backup was provided.

Sub-Element 13.1 Was a back-up resource available for communications amongst the primary operational leadership in case of failure of the primary mode?
Sub-Element 13.2 & 13.3 Did the primary mode fail during the event at any time? If so, was a back-up effectively provided?

Communications among primary operational leaders is critical and must be maintained at all times to promote operational safety, efficiency, and effectiveness. The availability of backup resources and the ability of responders to use them effectively, if needed, can reveal the depth and breadth of pre-event and contingency planning in a jurisdiction.

Ideal Performance

- Backup options (using radio communications) were identified for critical command-level and tactical channels and talkgroups.
- Backup options could be rapidly implemented, as needed.
- Backup options provided adequate capacity and coverage to restore communications for affected functions in the event of a failure.
- COML and Communications Unit personnel provided knowledgeable and realistic information regarding backup options and the process for transitioning to them, as needed.

Lessons Learned

- Backup options were not always identified in the ICS 205 or other event documentation.
- Backup options were not always separate from the primary radio system, which reduced their utility as a redundancy.

- Backup options did not account for users operating on different frequency bands.
- Inadequate coverage, the use of simplex systems as replacements for trunked talkgroups or conventional repeated channels, and the over-burdening of single channels and talkgroups with multiple functions were all observed problems that limited the utility of backup options.
- Contingency plans addressing known and potential hazards that could impact communications were not observed at every event.
- Step-by-step instructions on backup options and/or contingency plans were not documented in every IAP.
- The use of commercial cellular providers as a primary means of communications carries risks associated with loading, priority, and capacity.

Recommendations

Communications Plan / Documentation

- Ensure talk paths specified in the Communications Plan provide adequate coverage for the event or incident area.
- Expand the Communications Plan to include additional talkgroups/talk paths and/or portable repeaters to handle surge capacity and special needs that may arise during the event.
- Include additional talk paths to separate and therefore better isolate radio traffic based on functional or geographic locations.
- Include and utilize State and National Interoperable Channels as noted in the NIFOG and/or the Arizona Interoperable Channel Priority Programming Guide as additional resources in the Communications Plan.
- Document backup communications resources in the Incident Action Plan.
- A completed ICS 205T form providing direct phone contact information for all members of the primary operational leadership should be provided for each event.
- Develop and utilize comprehensive catastrophic mitigation and recovery plans which anticipate the possible loss of primary communications.
- Educate responders and communications personnel on the mitigation and recovery plan.

Procedures

- Require all patches to be requested, coordinated, and authorized by the COML.
- Conduct all non-essential testing and "demonstrations" outside the confines of the operational period.
- Redirect repeated operational radio transmissions on the Command Net channel that should not be on that talk path to a proper alternate radio channel.

- Recognize when channel overloading is occurring and move traffic to other talk paths as necessary, including establishment of procedures for communicating such a change.
- Run Law Enforcement operations through the use of multiple designated channels during events or incidents of sufficient magnitude.

Training/Exercises

- Conduct training and exercises to simulate failure scenarios and recovery methods.
- Educate all responders on the purpose of a Command Net channel and advise them who should be monitoring it and who is considered an eligible user of the channel.
- Provide radio communication and ICS training to all staff within the ICS command structure including volunteers and non-sworn personnel. NIMS-ICS independent study courses are available online at http://training.fema.gov/IS/NIMS.asp

Miscellaneous

- Establish and follow NIMS/ICS procedures.
- Acquire and deploy portable repeaters as a backup strategy.
- Assure that national and local interoperable channels are properly labeled in radios to assure these channels can be found when needed.
- Ensure utilization of backup resources when problems (such as interference) develop, failures occur or channels become overloaded.
- Distribute equipment caches to strategic locations within the County.

- Conduct equipment tests prior to each operational period and develop back-up plans in case of system failure.
- Troubleshoot and repair the mobile radios/headset system in the Incident Command Vehicle.
- Report all issues with AIRS to the DPS NOC per the AIRS MOU.
- Consider replacing dual-ear headsets used in the Incident Command Vehicle with light-weight single-ear headsets.

Element# 14: Primary operational leadership communicated adequately to manage resources and make timely decisions during the event or incident.

Sub-Element 14.1 Overall, was the primary operational leadership able to communicate adequately to manage resources during the incident or event?

Primary operational leaders must be able to quickly and efficiently mobilize participating responders and resources to address changing circumstances during an incident or event. Key elements of an effective response include: strong pre-event planning; interagency cooperation; the use of completed, widely distributed planning documents, such as the IAP; and the ability of Command and Operations personnel to communicate with their subordinates without significant physical or technological impediments.

Ideal Performance

- Primary operational leaders were able to communicate over the duration of the event to manage resources without any noted impediments relating to operable or interoperable communications capabilities.
- Incidents occurring within the event were addressed rapidly and effectively.
- Responders used interagency communications capabilities when appropriate.
- A thorough pre-planning process included representation from all participating agencies.
- The event was managed through a single, overarching, well-documented, NIMS-compliant IAP.
- Command and Operations components were managed using a cohesive, unified approach representative of all jurisdictions, disciplines, and agencies participating in the event.

- Primary operational leadership used various means of communications to manage the event and to maintain effective situational awareness.
- Effective communications/connectivity occurred among functions and disciplines in cases where there were multiple concurrent events.

Lessons Learned

- Not all participating agencies and organizations (e.g., Federal, State, local, tribal, and NGOs) were included in all pre-event planning functions, which hindered communications with Incident Command.
- NIMS-compliant Unified Command ICS structures were not always in place to manage the event.

Recommendations

Staffing

- Designate an Operations Section Chief for all multi-agency incidents and events.
- Staff the COML position at all large events or incidents.
- Require event staff to provide a liaison in the Incident Command Post in order to facilitate interoperability.
- The Emergency Manager or designee should be at all large special events, and significant incidents.

IAP / ICS Forms

- Create and utilize IAP's for all special events and significant incidents within the county.
- Develop and properly complete all necessary ICS forms and documents including a full IAP that includes an Organizational Chart for all special events and significant incidents within the County.
- Consider identifying leadership in multiple operational periods by utilizing multiple ICS forms as noted above.
- Provide short-form versions of the Communications Plan ("cheat sheets") to field personnel and incorporate into standard procedures and practices for pre-planned events.
- Include a representative from the event staff on the ICS 203 form (agency representative section).

Procedures

- Ensure the Operational Period designated includes adequate time for all phases of the event.
- Conduct multi-agency, multi-discipline briefings with all primary leadership from participating agencies.
- Limit Command Post access to essential staff on official business only.
- Conduct Situation Status Updates throughout events or incidents at regular intervals.

Miscellaneous

- Co-locate all Command and General Staff in secure Unified Command away from the public in order to foster better face-to-face communications and allow the Command Staff to concentrate on duties at hand. The Command Post should be located away from high traffic areas such as event entry points and helicopter landing zones.
- Increase the number of channels/frequencies available to manage multiple or catastrophic events within the county.

Conclusion

NECP Goal 2 assessments were an important step in Arizona's ongoing efforts to assess progress and improve interoperable emergency communications. To measure NECP Goal 2, PSIC worked with Arizona's non-UASI counties to determine their ability to demonstrate response-level emergency communications during a planned event chosen by each County. This approach provided the opportunity for evaluating emergency communications in real-world settings and in an economically efficient manner.

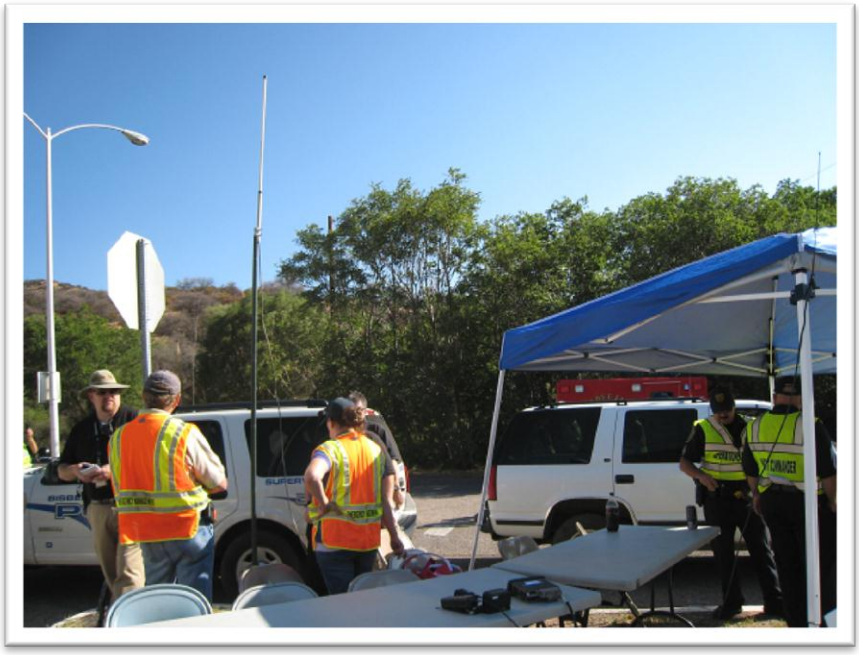
PSIC determined that a majority of the non-UASI counties have instituted the necessary capabilities to achieve interoperability among multiple agencies and jurisdictions during large-scale planned events. This success illustrates how significant organizational and technical investments have improved emergency communications capabilities in recent years.

Jurisdictions are encouraged to use their Goal 2 AARs and the recommendations in this Compendium to guide their ongoing improvement activities for emergency communications within their region. PSIC will use the results to better target its policy, planning, and support services so they address the gaps and needs identified during the Goal 2 observations. This applies to PSIC's development of or support for Federal grant applications, requests for technical assistance services, and PSIC's support to Counties with their countywide planning activities.

Appendix A - Goal Two Events and Participating Agencies

County	Event Date Emergency Manager (EM) Event Point of Contact (POC)	Number of Agencies					
		Local	County	State	Federal	Tribal	NGO
La Paz	Best in the Desert Race 02-05-2011 EM: Steve Biro POC: Curt Bagby	6	3	1	1	4	4
Santa Cruz	Tubac Festival of the Arts 02-12-2011 EM: Carlos Rivera POC: Louis Chaboya	4	2	1	1	0	3
Yuma	Midnight at the Oasis 03-05-2011 EM: Gretchen Robinson	5	2	1	1	2	4
Pinal	Country Thunder 04-10-2011 EM: Lou Miranda	2	3	2	0	0	4
Greenlee	Cinco De Mayo Weekend 05-07-2011 EM: Kay Gale POC: Stephen Rutherford	3	1	0	0	0	0
Navajo	Memorial Weekend Parade 05-28-2011 EM: Dan Hinz POC: Tiffany Ashworth	4	2	2	0	0	2
Coconino	AZ State HOG Rally 06-11-2011 EM: Paul Hellenberg	3	1	2	1	0	1
Yavapai	July 4th Parade and Fireworks 07-02-2011 EM: Nick Angiolillo	5	3	0	0	0	0
Cochise	Bisbee Coaster Races 07-04-2011 EM: Michael Evans	2	1	1	0	0	2
Graham	Pioneer Days 07-23-2011 EM: Terry Cooper POC: Brian Douglas	5	2	1	0	0	1
Mohave	Bullhead City Regatta 08-13-2011 EM: Byron Steward POC: Mike Browning	7	4	2	2	2	1

County	Event Date Emergency Manager (EM) Event Point of Contact (POC)	Number of Agencies					
		Local	County	State	Federal	Tribal	NGO
Gila	World's Oldest Continuous Rodeo 08-20-2011 EM: Michael Driscoll POC: Deborah Williams	4	3	1	0	1	2
Apache	65th Annual Navajo Nation Fair 09-10-2011 EM: Brannon Eagar POC: Richard Guinn	0	1	0	0	3	0
Total		**50**	**28**	**14**	**6**	**12**	**24**



Appendix B - Goal Two Observation Team Members

Name	Title	Agency	Role
Mr. Jeffrey Crane	PSIC Project Manager	ADOA-ASET PSIC Office	Project Manager
Mr. Michael Todd	PSIC Regional Interoperability Manager	ADOA-ASET PSIC Office	Lead Observer
Mr. Andrew Clark	PSIC Project Manager/Outreach	ADOA-ASET PSIC Office	Lead Observer
Sergeant Don Bischoff	Sergeant	Mohave County Sheriff's Office	Observer
Ms. Carol Campbell	Communications Manager	Surprise Police Department	Observer
Chief Steve Campbell	Chief	El Mirage Police Department	Observer
Mr. Jesse Cooper	Communications/IT Project Manager	Phoenix Police Department	Observer
Officer Brian Craig	COML, ERU Admin. Asst.	Omaha Police Department	Observer
Mr. Darin Douglass	Public Safety Communications Administrator	City of Mesa Police Department	Observer
Lieutenant Kurt Drezek	UASI - Law Enforcement Program Manager	City of Milwaukee Office of Homeland Security	Observer
Captain Frank Duarte	Captain	Pima County Sheriff's Office	Observer
Chief Steve Ellsworth	Deputy Chief, Operations	Avondale Fire Department	Observer
Ms. Sheri Emard	Communications Shift Supervisor	City of Mesa Police Department	Observer
Mr. Jason Hatchett	Captain	Guardian Ambulance	Observer
Mr. Morgan Hoaglin	Project Manager	Solomon Technology Solutions	Observer
Mr. Robert Hollister	Chairman	Cochise County Local Emergency Planning Committee	Observer
Mr. Jonathan "CJ" Holt	Public Safety Radio Communications Coordinator	North Central Texas Council of Governments (Community Services Department)	Observer
Chief Casey Justen	Chief	Tucson Fire Department	Observer
Mr. Jeremy Knoll	Wireless Systems Maintenance Supervisor	Arizona Department of Public Safety	Observer

Mr. Richard Langevin	Emergency Services Planner Communications	Maricopa County Department of Emergency Management	Observer
Mr. Thomas Lawless	Regional Coordinator - Region IX	U.S. Department of Homeland Security	Observer
Mr. David Martin	Communications Shift Supervisor	City of Mesa Police Department	Observer
Mr. Dennis Martinez	Deployment Communications Operator	Phoenix Fire Department	Observer
Mr. Gregory Roemke	Communications Shift Supervisor	City of Mesa Police Department	Observer
Mr. Jason Roosevelt	User Technology Specialist/COML	Phoenix Fire Department	Observer
Ms. Louise Smith	Prescott Regional Communications Director	Prescott Police Department	Observer
Mr. Keith Victor	Communications Systems Manager	Town of West Hartford	Observer
Ms. Lisa Hansen	Assistant Director	Arizona Department of Homeland Security	Grant Oversight
Ms. Lisa Dee Meyerson	Statewide Interoperability Coordinator	ADOA-ASET PSIC Office	Team Support
Mr. Justin Turner	Deputy Statewide Interoperability Coordinator	ADOA-ASET PSIC Office	Team Support
Dr. Michael Britt	PSIC Project Manager	ADOA-ASET PSIC Office	Team Support
Ms. Suesan Nordman	PSIC Project Manager	ADOA-ASET PSIC Office	Team Support

Appendix C- Acronyms

Item/Acronym	Definition
AAR	After Action Report
ACSO	Apache County Sheriff's Office
ADOA	Arizona Department of Administration
ADEM	Arizona Division of Emergency Management
AIRS	Arizona Interagency Radio System
ASET	Arizona Strategic Enterprise Technology
AZ	Arizona
AZDOHS	Arizona Department of Homeland Security
BLM	Bureau of Land Management
CAP	Corrective Action Program
CASM	Communications Assets Survey and Mapping Tool
COML	Communications Unit Leader
COMT	Communications Technician
CSQ	Carrier Squelch
CTCSS	Continuous Tone Coded Squelch System
DEMA	Arizona Department of Emergency and Military Affairs
DHS	Department of Homeland Security
DPS	Arizona Department of Public Safety
EMD	Emergency Medical Dispatcher
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
EOC	Emergency Operations Center
EPO	Environmental Protection Office
FCC	Federal Communications Commission
FEMA	Federal Emergency Management Agency

Item/Acronym	Definition
FEMA/GPD	Federal Emergency Management Agency's Grant Programs Directorate
FOUO	For Official Use Only
HRS	Hours
IAP	Incident Action Plan
IC	Incident Command or Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
ICTAP	Interoperable Communications Technical Assistance Program
IGA	Intergovernmental Agreement
INCM	Incident Communications Manager
IP	Improvement Plan
LEO	Law Enforcement Officer
LMR	Land Mobile Radio
MCU	Mobile Communications Unit
MOU	Memorandum of Understanding
NECP	National Emergency Communications Plan
NGO	Non-Governmental Organization
NIFOG	National Interoperability Field Operations Guide
NIMS	National Incident Management System
NOC	Arizona Department of Public Safety Network Operations Center
NPSTC	National Public Safety Telecommunications Council
OEC	Office of Emergency Communications
OIC	Officer in Charge
OSC	Operations Section Chief
PAR	Personnel Accountability Report
POC	Point of Contact

Item/Acronym	Definition
POL	Primary Operational Leadership
PSCC	Public Safety Communications Advisory Commission
PSIC	Public Safety Interoperable Communications
REC	Recommendation
RF	Radio Frequency
SAFECOM	A communications program of DHS that provides research, development, testing, evaluation, guidance, tools and templates on interoperable communications.
SEECP	Special Event Emergency Contingency Plan
SIEC	Statewide Interoperability Executive Committee
SITSTATS	Situational Status Updates
SME	Subject Matter Expert
SOP	Standard Operating Procedure
TA	Technical Assistance
TCA	Target Capabilities Assessment
TICP	Tactical Interoperable Communications Plan
UASI	Urban Areas Security Initiative
UC	Unified Command or Unified Commander
UHF	Ultra High Frequency
VHF	Very High Frequency
WSB	Wireless Services Bureau of DPS

Note: Some acronyms may not appear in this Compendium